

chapter 9

Sludge



Sludge

Program Assistance

Air Regulations - For questions on air regulations, compliance inspections, or enforcement actions, contact your Region Office Air Program Manager (refer to Chapter 1).

Copies of the Sludge Rules - To obtain a copy of the current Sludge Rules, call Outreach Services at 512/239-0028 and request TNRCC Publication GI-32. To receive a copy electronically, refer to Chapter 2, OnLine Services Section.

Enforcement - For assistance with or questions on enforcement activities, call Enforcement at 512/239-4466.

Hearings - For location and schedule information on sludge permit hearings, call the State Office of Administrative Hearings at 512/475-4993.

National Pollutant Discharge Elimination System (NPDES) Sludge Permits - For information on EPA's NPDES sludge permitting program, call EPA Permits at 214/665-7191.

Permits, Registrations, Regulatory Requirements - For sludge permits, or registrations, or for questions on the sewage sludge program, call the Sludge and Transporter Review Team at 512/239-4433.

Records/Permit Copies - To obtain sludge file records or copies of sludge permits, or beneficial land application registrations, call Central Records at 512/239-0972.

Transporters/Trip Tickets - For information on sewage sludge and similar waste transporter or trip ticket requirements, call the Sludge and Transporter Review Team at 512/239-4433.

Federal and State Authority

Federal

EPA is authorized to regulate sewage sludge through its NPDES wastewater discharge permit program or through sludge only permits.

State

The Texas Solid Waste Disposal Act (SWDA) authorizes TNRCC to regulate municipal wastewater sludge and sludge from drinking water treatment facilities. TNRCC regulations govern the transportation, beneficial use, disposal, processing, and blending of sludge.

Program Requirements

A TNRCC permit or registration is required for most activities that involve processing, transportation, or disposal of sludge. A general description of the permit process is provided in Chapter 3. TNRCC strongly encourages anyone planning to undertake an activity that may require a permit or registration to discuss it with TNRCC staff well in advance of applying for a permit or registration. This will prevent unnecessary difficulties with processing applications or amendments as the project develops and allow TNRCC staff to provide technical assistance as needed. Contact the Local Government Assistance Office (800/687-9222 or 512/239-5300) for help.

Permits and Registrations

Permits

Disposal

Permits are required for the disposal of sludge. The basic steps in the permit process are described in Chapter 3. The time generally required for a sludge disposal permit is as follows:

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|--------------------------|----------|
| Administrative Review | 2 weeks |
| Technical Review | 15 weeks |
| Public Notice | 4 weeks |
| Comment on Public Notice | 4 weeks |

Uncontested permits may be completed within 26 weeks. This process may be longer if:

- ▼ During the administrative review, staff determines that the application's information is insufficient and has to request additional information; or
- ▼ During the technical review, staff requires additional information to complete the review; or
- ▼ The public notice results in a request for public hearing. In the latter case, jurisdiction over the permit process is transferred from the Executive Director and the Sludge Permitting Staff to the State Office of Administrative Hearings (512/475-4993).

Registrations

Registrations are required for the transportation and beneficial use of sludge. Beneficial use is defined as the land application of treated domestic water sewage sludge at or below the agronomic needs of a cover crop.

Beneficial Use

The registration process for the beneficial use of sewage sludge is similar to the sludge permit process, but more compressed. The technical review period is approximately 60 days. The public notice phase is concurrent with the technical review. There are no evidentiary hearings on a beneficial use sludge registration, but a public meeting for local input may be conducted if local interest is high.

Transporters

A transporter registration requires Agency approval, but does not involve any public notification process. Sludge transporter registrations are generally processed within 14 days of receiving complete information by the applicant.

The Sludge and Transporter Review Team (512/239-4433) will be glad to send you the required forms for a permit or registration.

Air Requirements

In addition to the requirements noted above, all sludge activities must be evaluated for any impact on air quality. No action can legally result in a condition of nuisance smoke, odor, dust or aerosol, cause a traffic hazard, or contribute to a condition of air pollution.

Nuisance and traffic conditions are referenced in General Rules 101.4 and 101.5 of 30 Texas Administrative Code (TAC), Chapter 101. For more information on air requirements, contact your Region Office Air Program Manager (refer to Chapter 1).

Reports

Anyone who generates or transports sludge is required to report annually on the volume transported or generated. These reports are used to determine the frequency of facility inspections and are also reviewed when a renewal or amendment to a permit or beneficial use registration is requested.

All sludge permits and beneficial use registrations require monitoring to protect soil and groundwater from over-application of metals and plant nutrients. Monitoring requirements are covered in 30 TAC Chapter 312. Reports are made on an annual basis unless otherwise specified in the registration or permit.

Other reports may be required as a condition of a permit or beneficial use registration. For assistance or report forms, contact the Sludge and Transporter Review Team at 512/239-4433.

Fees

Sludge Disposal Fee

An annual fee is assessed on the quantity of sewage sludge either disposed of or beneficially used. Fees are based on volume; the more you use or dispose of, the more you pay. There is no

cap on this fee, and all revenue is deposited into the Municipal Solid Waste (MSW) Fund.

Sludge Transporter Fee

Registered transporter fees range from \$100 to \$500 and are assessed annually. Revenues from this fee are also deposited into the MSW Fund.

Inspections

A generic description of the inspection process is outlined in Chapter 3. For more detailed information on any aspect of the inspection process, contact the TNRCC Field Operations Division (512/239-0400) or your Region Office (refer to Chapter 1).

A sludge inspection is designed to assure that sludge permit or registration requirements are being met. The inspector will look at recordkeeping practices, facility operations and maintenance, soil sampling results and lab reports containing monitoring information.

The field inspector will also pay particular attention to the following:

- ▼ The type of waste authorized for land application, soil background metals, and the ceiling concentrations of sewage sludge;
- ▼ The cumulative loading rate per metal, concentration of metals, and the calculated annual application rate for domestic septage;
- ▼ The condition of the land (should not be flooded, frozen or snow-covered during application), and that proper buffer zones are maintained between the application site and drinking water supply wells, State waters, schools, and other designated buffer zone areas;
- ▼ The sludge application rate to assure that it is equal to or less than the agronomic rate;
- ▼ The water table or depth to water-saturated soil limits; Sludge is disced into the soil within 48 hours after application to unvegetated soil and is uniform in application; and
- ▼ The containment method for storm water runoff, and that mud and dust control, and pathogen and vector attraction requirements are met.

Enforcement

A general description of the TNRCC enforcement process is outlined in Chapter 3. If air quality violations are involved, the process is governed by State law and differs slightly. The violation is either resolved within 30 days from receipt of a notice of violation (NOV), or the matter is referred to TNRCC Central Office for formal enforcement proceedings. You are advised to contact your Region Office immediately for information on handling violations, or to request technical assistance.

In Addition

Frequently Asked Questions

I have a facultative and stabilization pond treatment system where solids are stored within the system over the design life of the facility. What would this facility be required to do according to 30 TAC Chapter 312?

The ponds are considered active units for treating domestic sewage and would not be covered under Chapter 312 until the sludge was removed or the system has ceased operations. When the sludge is removed from the treatment system, all requirements of Chapter 312 must be met if the sludge is applied to land or disposed of in a surface disposal facility.

If the sludge is dewatered and disposed in a co-disposal landfill Chapter 312 does not apply. The sludge must be non-hazardous and pass the federal paint filter test, established in 40 CFR 258.

I haul sewage sludge from my wastewater treatment facility with city-owned vehicles. Do I have to be registered with TNRCC?

Yes, 30 TAC Chapter 312 Subchapter G requires all transporters of sewage sludge, water treatment sludge, domestic septage, grease trap waste, and grit trap waste to maintain a current TNRCC registration. There are two exceptions: sewage sludge which meets the Table 3 metal limitations [30 TAC Chapter 312.43(b)(3)], Class A pathogen attraction requirements (30 TAC Chapter 312.82), and any of the vector reduction requirement alternatives (30 TAC Chapter

312.83); or the transportation activity is conducted on city-owned property and does not involve public roadways.

What disposal and use options exist for sewage sludge?

Sewage sludge may be beneficially applied to land; or marketed and distributed to the general public in accordance with 30 TAC Chapters 312 Subchapters A, B, and D; or transferred to another treatment facility for further treatment and ultimate disposal or use. Sewage sludge may also be disposed in an MSW landfill if it is non-hazardous and passes the paint filter test (see first question above), or disposed in a sludge-only landfill in accordance with 30 TAC Chapter 312 Subchapter C. Another option is incineration in accordance with 30 TAC Chapter 312 Subchapter E. If this option is considered, contact the Region Office to determine what air regulations may affect this disposal method.

Other Assistance

Loans, technical assistance, and grants for water-related activities are available through the Texas Water Development Board (TWDB). For information call 512/463-8509 or contact the TWDB Development Fund Manager's Office at 512/463-0991.

The State Comptroller's Office also maintains a listing of federal and state funding sources for local governments on its electronic bulletin board, Window on State Government. Chapter 2 provides instructions on accessing this service.

Significant Laws and Regulations

The following is a brief summary of the federal and State laws and regulations relating to sewage sludge. Please refer to the official rules for specific questions regarding compliance and applicability. The TNRCC publication "Regulatory Resource" (GI-32) contains detailed information about obtaining copies of the Agency's Rules (see Appendix 4). The TNRCC Rules are also accessible from the Agency bulletin board. Refer to OnLine Services in Chapter 2 for more details.

Federal Law

Clean Water Act

Establishes federal authority for regulating sewage sludge.

Federal Regulations

40 CFR 257

Sets criteria for the classification of solid waste disposal facilities and practices, including restrictions to protect floodplains, surface water, groundwater and endangered species.

Outlines specific regulations for disposal of non-hazardous industrial sludges and sewage sludge not used in accordance with 40 CFR 503.

Specifies processes to significantly reduce pathogens in land-applied sludge.

40 CFR 258

Outlines criteria for MSW landfills. For a more complete description, refer to Chapter 5.

40 CFR 503

Outlines the use and disposal of sewage sludge and domestic septage.

Establishes general requirements, pollutant limits, management practices, and operational standards.

Includes standards for sewage sludge applied to the land, placed in a surface disposal site, or fired in an incinerator.

State Law

*Texas Health and Safety Code (THSC)
Chapter 361*

Authorizes TNRCC to:

- ▼ Promulgate rules to establish minimum standards of operation for all aspects of the management and control of solid waste.
- ▼ Inspect and approve sites used or proposed for the disposal of solid waste.
- ▼ Require and issue permits authorizing and governing the operation of sites used for the disposal of solid waste.
- ▼ Revoke or amend any permit issued for reasons pertaining to public health, air or water pollution, land use, or violation of the Safe Drinking Water Act (SDWA) or any other laws or regulations controlling the disposal of solid waste.

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▼ Permit authorized agents (such as local health officials) and agency employees to inspect and investigate conditions relating to solid waste management at public or private properties.

Commission to carry out the responsibilities for management of sludge disposal activities under TWC Chapters 26, 27, and 28, and the Texas Solid Waste Disposal Act.

State Regulations

30 TAC Chapter 281 - Application Processing

Establishes a general policy for processing of applications for permits, licenses and other types of approvals in order to achieve the greatest efficiency and effectiveness possible.

30 TAC Chapter 305 - Consolidated Permits

Sets the standards and requirements for applications, permits, and actions by the

30 TAC Chapter 312

Contains the rules governing the use and disposal of wastewater sludge, domestic septage and the transportation of sludge and septage. If sewage sludge, water treatment sludge, or septage is not of a municipal (domestic) origin, it is regulated as either a municipal solid waste or industrial solid waste, subject to the requirements of 40 CFR 257 or 258, or 30 TAC Chapter 335 respectively.